

State of Florida



Public Service Commission
CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

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COMMISSION
CLERK

DATE: June 7, 2012

TO: Office of Commission Clerk (Cole)

FROM: Division of Regulatory Analysis (Graves) *REG JKS*
Office of the General Counsel (Robinson) *PER M RLT*

RE: Docket No. 120072-EQ – Petition for approval of renewable energy tariff and standard offer contract, by Florida Power & Light Company.

AGENDA: 06/19/12 – Regular Agenda – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Administrative

CRITICAL DATES: None

SPECIAL INSTRUCTIONS: None

FILE NAME AND LOCATION: S:\PSC\RAD\WP\120072.RCM.DOC

Case Background

Section 366.91(3), Florida Statutes (F.S.), requires that each investor-owned utility (IOU) continuously offer to purchase capacity and energy from renewable energy generators. Rules 25-17.200 through 25-17.310, Florida Administrative Code (F.A.C.), require each IOU to file with the Commission by April 1 of each year a standard offer contract based on the next avoidable generating unit or planned purchase. Florida Power & Light Company (FPL or Company) filed its petition for approval of an amended standard offer contract on April 2, 2012.

The Commission has jurisdiction over this standard offer contract pursuant to Sections 366.04 through 366.06 and 366.91, F.S.

DOCUMENT NUMBER - DATE
03712 JUN -7 2012
FPSC-COMMISSION CLERK

Discussion of Issues

Issue 1: Should the Commission approve the standard offer contract and the associated renewable energy tariff filed by Florida Power & Light Company?

Recommendation: Yes. The revised standard offer contract and related tariffs filed on April 2, 2012, comply with Rules 25-17.200 through 25-17.310, F.A.C. (Graves)

Staff Analysis: Because FPL is an IOU, Rule 25-17.250, F.A.C., requires it to continuously make available a standard offer contract for the purchase of firm capacity and energy from renewable generating facilities and small qualifying facilities with a design capacity of 100 kilowatts or less.

FPL's 2011 standard offer contract, filed on April 1, 2011, was based on a 1,191 megawatt (MW) natural gas-fired combined cycle unit with an in-service date of June 1, 2016. The Commission approved FPL's 2011 standard offer contract on October 4, 2011.¹ On November 21, 2011, FPL filed a petition seeking an affirmative determination of need for modernization of its Port Everglades Energy Center with a proposed in-service date of June 1, 2016. The Port Everglades Energy Center (1,277 MW) represented FPL's natural gas-fired combined cycle unit, previously identified in its 2011 standard offer contract.

With the filing of the need determination, FPL's next avoided unit changed and most of the cost data in its 2011 standard offer contract had to be revised to reflect the new next avoided unit. On November 28, 2011, FPL filed a revised 2011 standard offer contract which was based on a 1,262 MW combined cycle unit at a greenfield site with an in-service date of June 1, 2021. The Commission voted to approve FPL's determination of need for the Port Everglades Energy Center as well as the revised standard offer contract on March 27, 2012.²

FPL's 2012 Ten-Year Site Plan (TYSP), filed with the Commission on April 2, 2012, does not contain the aforementioned 2021 combined cycle unit or any other avoidable fossil fueled generating unit. Pursuant to Rule 25-17.250(1), F.A.C., each investor-owned utility with no planned generating unit identified in its Ten-Year Site Plan shall submit a standard offer contract based on avoiding or deferring a planned purchase. Relying on updated analyses using updated assumptions FPL determined that a need for additional capacity in 2021 remains, however, the Company is currently assuming its 2021 need will be met with a one-year, 250 MW, power purchase agreement. Table 1 below, summarizes FPL's recent standard offer contract related filings.

Table 1: Summary of Recent Filings

	Date Filed	Date Approved
2011 Standard Offer Contract	4/1/2011	10/4/2011
PEEC Need Determination	11/21/2011	3/27/2012
2011 Revised Standard Offer Contract	11/28/2011	3/27/2012
2012 Standard Offer Contract	4/2/2012	--

¹ See Order No. PSC-11-0466-TRF-EQ, issued on October 13, 2011, in Docket No. 110091-EQ, In re: Petition for approval of renewable energy tariff and standard offer contract by Florida Power & Light Company.

² See Order No. PSC-12-0187-FOF-EI, issued on April 9, 2012, in Docket No. 110309-EI, In re: Petition to determine need for modernization of Port Everglades Plant by Florida Power & Light Company.

Following the one-year power purchase agreement the projected addition of Turkey Point Nuclear Units 6 and 7 will provide an additional 1,110 MW of capacity in 2022 and 2023 thus maintaining FPL's 20 percent reserve margin. Subsequent to the addition of Turkey Point Units 6 and 7 FPL's next avoidable fossil fuel-fired generating unit has a projected in-service date in 2025 which is beyond the ten-year planning horizon.

In its petition, FPL submitted a total of 5 revised tariff sheets, including 1 revised sheet of FPL's renewable standard offer contract and 4 revised sheets corresponding to FPL's QS-2 rate schedule. All of the revised sheets reflect changes associated with the planned purchase. Beyond these revisions, all other terms, such as provisions for performance, payment, and security are retained from the 2011 standard offer contract and related tariffs. The revised tariff sheets filed by FPL are included in Attachment A, to this recommendation.

A renewable generator can elect to have no performance requirements and simply deliver energy on an as-available basis. If the renewable generator commits to certain performance requirements based on the planned purchase, including being online and delivering capacity by the in-service date, it can receive a capacity payment under the proposed standard offer contract or a separately negotiated contract. Because the planned purchase is for one year only, election of a normal capacity payment would result in a capacity payment for only one year, and revenue for all other years would be received based on as-available energy payments. This is illustrated in Table 2 below. Staff would note that standard offer contracts often serve as a starting point for negotiated contracts by providing information regarding payments.

To promote renewable generation, the Commission requires multiple options for capacity payments. If a renewable generator elects to receive Normal or Levelized capacity payments, it would receive those payments starting on the in-service date of the avoided planned purchase.

If Early or Early Levelized capacity payments are selected, those payments would begin at an earlier date but tend to be less in the outer years as the net present value of payments must remain the same. In addition, capacity payments greater than those made under the Normal option require additional performance security from the renewable generator. Table 2 estimates the annual payments that would be made to a renewable facility of 50 MW running at a 94 percent capacity factor, with an in-service date of 2012.

Table 2 - Estimated Annual Payments to a 50 MW Renewable Facility (94% Capacity Factor)

Year	Energy Payment	Capacity Payment by Type (\$000)			
		Normal	Levelized	Early	Early Levelized
2013	15,843	0	0	0	0
2014	16,530	0	0	0	0
2015	17,167	0	0	0	0
2016	19,906	0	0	0	0
2017	21,528	0	0	0	0
2018	23,234	0	0	0	0
2019	24,761	0	0	0	0
2020	27,753	0	0	191	223
2021	30,062	2,114	252	197	223
2022	30,656	0	252	203	223
2023	30,895	0	252	209	223
2024	33,524	0	252	215	223
2025	34,578	0	252	222	223
2026	34,973	0	252	229	223
2027	35,996	0	252	235	223
2028	36,685	0	252	242	223
2029	35,930	0	252	250	223
2030	35,646	0	252	257	223
2031	35,804	0	252	265	223
2032	36,131	0	252	273	223
Total (2012 NPV)	269,567	1,122	1,122	1,122	1,122

Conclusion

The provisions of the 2012 standard offer contract and related tariffs conform to all requirements of Rules 25-17.200 through 25-17.310, F.A.C. The standard offer contract provides flexibility in the arrangements for payments so that a developer of renewable generation may select the payment stream best suited to its financial needs. As such, staff believes the revised standard offer contract and related tariffs filed on April 2, 2012, by FPL should be approved.

Issue 2: Should this docket be closed?

Recommendation: Yes. If the Commission approves staff's recommendation to approve the proposed standard offer contract and related tariffs submitted by FPL, and no person whose substantial interests are affected requests a hearing to address this matter, then Docket No. 120072-EG should be closed, and the standard offer contracts and related tariffs submitted by FPL should be effective as of the date of the Commission's vote. If a protest is filed within 21 days of the issuance of the Commission's Order, the tariffs should remain in effect pending resolution of the protest. Potential signatories to the standard offer contract should be aware that FPL's tariffs and standard offer contracts may be subject to a request for hearing, and if a hearing is held, may be subsequently revised. (Robinson)

Staff Analysis: If the Commission approves staff's recommendation to approve the proposed standard offer contract and related tariffs submitted by FPL, and no person whose substantial interests are affected requests a hearing to address this matter, then Docket No. 120072-EG should be closed, and the standard offer contracts and related tariffs submitted by FPL should be effective as of the date of the Commission's vote. If a protest is filed within 21 days of the issuance of the Commission's Order, the tariffs should remain in effect pending resolution of the protest. Potential signatories to the standard offer contract should be aware that FPL's tariffs and standard offer contracts may be subject to a request for hearing, and if a hearing is held, may be subsequently revised.

FLORIDA POWER & LIGHT COMPANY

~~Fifth Sixth~~ Revised Sheet No. 9.032
Cancels ~~Fourth Fifth~~ Revised Sheet No. 9.032

(Continued from Sheet No. 9.031)

- (c) If the QS is a REF, the QS shall, on an annual basis and within thirty (30) days after the anniversary date of this Contract and on an annual basis thereafter for the term of this Contract, deliver to FPL a report certified by an officer of the QS: (i) stating the type and amount of each source of fuel or power used by the QS to produce energy during the twelve month period prior to the anniversary date (the "Contract Year"); and (ii) verifying that one hundred percent (100%) of all energy sold by the QS to FPL during the Contract Year complies with Sections 1(a) and (b) of this Contract.
- (d) If the QS is a REF, the QS represents and warrants that the Facility meets the renewable energy requirements of Section 366.91(2)(a) and (b), Florida Statutes, and FPSC Rules 25-17.210(1) and (2), F.A.C., and that the QS shall continue to meet such requirements throughout the term of this Contract. FPL shall have the right at all times to inspect the Facility and to examine any books, records, or other documents of the QS that FPL deems necessary to verify that the Facility meets such requirements.
- (e) The Facility (i) has been certified or has self-certified as a "qualifying facility" pursuant to the Regulations of the Federal Energy Regulatory Commission ("FERC"), or (ii) has been certified by the FPSC as a "qualifying facility" pursuant to Rule 25-17.080(1). A QS that is a qualifying facility with a design capacity of less than 100 KW shall maintain the "qualifying status" of the Facility throughout the term of this Contract. FPL shall have the right at all times to inspect the Facility and to examine any books and records or other documents of the Facility that FPL deems necessary to verify the Facility's qualifying status. On or before March 31 of each year during the term of this Contract, the QS shall provide to FPL a certificate signed by an officer of the QS certifying that the Facility has continuously maintained qualifying status.

2. Term of Contract

Except as otherwise provided herein, this Contract shall become effective immediately upon its execution by the Parties and shall have the termination date stated in Appendix E, unless terminated earlier in accordance with the provisions hereof. Notwithstanding the foregoing, if the Capacity Delivery Date (as defined in Section 5.5) of the Facility is not accomplished by the QS before June 1, 2021, or such later date as may be permitted by FPL pursuant to Section 5 of this Contract, FPL will be permitted to terminate this Contract consistent with the terms herein without further obligations, duties or liability to the QS.

3. Minimum Specifications

Following are the minimum specifications pertaining to this Contract:

- 1. The avoided unit ("Avoided Unit") on which this Contract is based is a ~~1,262,250~~ MW ~~combined-cycle-unit~~ ~~planned purchase~~.
- 2. This offer shall expire on April 1, ~~2012~~2013.
- 3. The date by which firm capacity and energy deliveries from the QS to FPL shall commence is June 1, 2021 (or such later date as may be permitted by FPL pursuant to Section 5 of this contract) unless the QS chooses a capacity payment option that provides for early capacity payments pursuant to the terms of this contract.
- 4. The period of time over which firm capacity and energy shall be delivered from the QS to FPL is as specified in Appendix E; provided, such period shall be no less than a minimum of ten (10) years after the in-service date of the Avoided Unit.
- 5. The following are the minimum performance standards for the delivery of firm capacity and energy by the QS to qualify for full capacity payments under this Contract:

	On Peak *	All Hours
Availability	94.0%	94.0%

* QS Performance and On Peak hours shall be as measured and/or described in FPL's Rate Schedule QS-2 attached hereto as Appendix A

(Continued on Sheet No. 9.033)

Issued by: S. E. Romig, Director, Rates and Tariffs
Effective: ~~March 27, 2012~~

FLORIDA POWER & LIGHT COMPANY

~~Fifth Sixth~~ Revised Sheet No. 10.301
 Cancels ~~Fourth Fifth~~ Revised Sheet No. 10.301

(Continued from Sheet No. 10.300)

RATES FOR PURCHASES BY THE COMPANY

Firm Capacity and Energy are purchased at a unit cost, in dollars per kilowatt per month and cents per kilowatt-hour, respectively, based on the value of deferring additional capacity required by the Company. For the purpose of this Schedule, an Avoided Unit has been designated by the Company. The Company's Avoided Unit has been identified as a ~~1,262,250~~ MW combined cycle unit with an in-service date of June 1, 2021 ~~one year power purchase agreement in 2021~~. Appendix I to this Schedule describes the methodology used to calculate payment schedules, applicable to the Company's Standard Offer Contract filed and approved pursuant to Section 366.91, Florida Statutes and to FPSC Rules 25-17.082 through 25-17.091, F.A.C and 25-17.200 through 25-17.310, F.A.C.

A. Firm Capacity Rates

Options A through E are available for payment of firm capacity which is produced by a QS and delivered to the Company. Once selected, an option shall remain in effect for the term of the Standard Offer Contract with the Company. A payment schedule, for the normal payment option as shown below, contains the monthly rate per kilowatt of Firm Capacity which the QS has contractually committed to deliver to the Company and is based on a contract term which extends ten (10) years beyond June 1, 2021. Payment schedules for other contract terms, as specified in Appendix E, will be made available to any QS upon request and may be calculated based upon the methodologies described in Appendix I. The currently approved parameters used to calculate the following schedule of payments are found in Appendix II to this Schedule.

Adjustment to Capacity Payment

The firm capacity rates will be adjusted to reflect the impact that the location of the QS will have on FPL system reliability due to constraints imposed on the operation of FPL transmission tie lines.

Appendix III shows, for illustration purposes, the factors that would be used to adjust the firm capacity rate for different geographical areas. The actual adjustment would be determined on a case-by-case basis. The amount of such adjustment, as well as a binding contract rate for firm capacity, shall be provided to the QS within sixty days of FPL execution of the signed Standard Offer Contract.

Option A - Fixed Value of Deferral Payments - Normal Capacity

Payment schedules under this option are based on the value of a year-by-year deferral of the Company's Avoided Unit ~~single year purchase~~ with an in-service date of June 1, 2021, as described in Appendix I. Once this option is selected, the current schedule of payments shall remain fixed and in effect throughout the term of the Standard Offer Contract.

EXAMPLE MONTHLY CAPACITY PAYMENT IN \$/KW/MONTH
 2021 COMBINED CYCLE AVOIDED UNIT POWER PURCHASE AGREEMENT (~~1,262,250~~ MW)
 STANDARD OFFER CONTRACT AVOIDED CAPACITY PAYMENTS
 FOR A CONTRACT TERM OF 10 YEARS
 (\$/KW/MONTH)

Contract Year		Normal Payment
From	To	Starting
		06/01/2021
6/1/2021	5/31/2022	9,773.52
6/1/2022	5/31/2023	10,060.00
6/1/2023	5/31/2024	10,360.00
6/1/2024	5/31/2025	10,670.00
6/1/2025	5/31/2026	10,980.00
6/1/2026	5/31/2027	11,340.00
6/1/2027	5/31/2028	11,640.00
6/1/2028	5/31/2029	11,990.00
6/1/2029	5/31/2030	12,340.00
6/1/2030	5/31/2031	12,740.00

(Continued on Sheet No. 10.302)

Issued by: S. E. Romig, Director, Rates and Tariffs
 Effective: March 27, 2012

(Continued from Sheet No. 10.303)

For any Dispatch Hour the firm energy rate shall be, on an hour-by-hour basis, the Company's Avoided Unit Energy Cost. For any other period during which energy is delivered by the QS to FPL, the firm energy rate in cents per kilowatt hour (¢/KWh) shall be the following on an hour-by-hour basis: the lesser of (a) the as-available energy rate calculated by FPL in accordance with FPSC Rule 25-17.0825, FAC, and FPL's Rate Schedule COG-1, as they may each be amended from time to time and (b) the Company's Avoided Unit Energy Cost. The Company's Avoided Unit Energy Cost, in cents per kilowatt-hour (¢/KWh) shall be defined as the product of: (a) the fuel price in \$/mmBTU as determined from gas prices published in Platts Inside FERC Gas Market Report, first of the month posting for Florida Gas Transmission Zone 3, plus all charges, surcharges and percentages that are in effect from time to time for service under Gulfstream Natural Gas System's Rate Schedule FTS; and (b) an average annual heat rate of 6,362,13,000 BTU per kilowatt hour; plus (c) an additional 0.409526095¢ per kilowatt hour in mid 2021 dollars for variable operation and maintenance expenses which will be escalated based on the actual Producer Price Index. All energy purchases shall be adjusted for losses from the point of metering to the Delivery Point. The calculation of the Company's avoided energy cost reflects the delivery of energy from the geographical area of the Company in which the Delivery Point of the QS is located.

Option D- Fixed Firm Energy Payments Starting as early as the In-Service Date of the OS Facility

The calculation of payments to the QS for energy delivered to FPL may include an adjustment at the election of the QS in order to implement the provisions of Rule 25-17.250 (6) (b), F.A.C. Subsequent to the determination of full avoided cost and subject to the provisions of Rule 25-17.0832(3) (a) through (d), F.A.C., a portion of the base energy costs associated with the avoided unit, mutually agreed upon by the utility and renewable energy generator, shall be fixed and amortized on a present value basis over the term of the contract starting, at the election of the QS, as early as the in-service date of the QS. "Base energy costs associated with the avoided unit" means the energy costs of the avoided unit to the extent the unit would have operated. The portion of the base energy costs mutually agreed to by the Company and the QS shall be specified in Appendix E. The Company will provide the QS with a schedule of "Fixed Energy Payments" over the term of the Standard Offer Contract based on the applicable information specified in Appendix E.

ESTIMATED AS-AVAILABLE ENERGY COST

For informational purposes only, the estimated incremental avoided energy costs for the next ten annual periods are as follows. In addition, avoided energy cost payments will include 0.40950018¢/KWh for variable operation and maintenance expenses.

Applicable Period	On-Peak ¢/KWH	Off-Peak ¢/KWH	Average ¢/KWH
2011	5.89	5.57	5.68
2012	5.144.55	4.633.80	4.804.08
2013	4.684.18	4.203.68	4.363.85
2014	4.544.26	4.213.90	4.324.02
2015	4.884.40	4.524.06	4.644.17
2016	5.685.14	5.184.66	5.254.82
2017	6.145.54	5.645.07	5.785.23
2018	6.445.93	5.995.50	6.145.64
2019	6.746.25	6.385.90	6.506.01
2020	7.547.05	6.986.56	7.156.72
2021	7.647.54	7.167.18	7.327.30
2022	7.81	7.26	7.45

A MW block size ranging from 58 MW to 65 MW has been used to calculate the estimated As-Available energy cost.

ESTIMATED UNIT FUEL COST

The estimated unit fuel costs listed below are associated with the Company's Avoided Unit and are based on current estimates of the price of natural gas.

										S/MMBTU
2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
9.218.53	9.879.16	10.549.81	11.4910.49	12.3711.17	13.5311.41	13.7511.62	12.9811.82	13.2412.04	13.4512.25	

(Continued on Sheet No. 10.305)

Issued by: S. E. Romig, Director, Rates and Tariffs

Effective: March 27, 2012

FLORIDA POWER & LIGHT COMPANY

~~Fifth Sixth~~ Revised Sheet No. 10.306
Cancels ~~Fourth Fifth~~ Revised Sheet No. 10.306

(Continued from Sheet No. 10.305)

CHARGES TO ENERGY FACILITY

The QS shall be responsible for all applicable charges as currently approved or as they may be approved by the Florida Public Service Commission, including, but not limited to:

A. Customer Charges:

Monthly customer charges for meter reading, billing and other applicable administrative costs as per applicable Customer Rate Schedule.

B. Interconnection Charge for Non-Variable Utility Expenses

The QS shall bear the cost required for interconnection, including the metering. The QS shall have the option of (i) payment in full for the interconnection costs including the time value of money during the construction of the interconnection facilities and providing a Bond, Letter of Credit or comparable assurance of payment acceptable to the Company adequate to cover the interconnection cost estimates, (ii) payment of monthly invoices from the Company for actual costs progressively incurred by the Company in installing the interconnection facilities, or (iii) upon a showing of credit worthiness, making equal monthly installment payments over a period no longer than thirty-six (36) months toward the full cost of interconnection. In the latter case, the Company shall assess interest at the rate then prevailing for thirty (30) day highest grade commercial paper, such rate to be specified by the Company thirty (30) days prior to the date of each installment payment by the QS.

C. Interconnection Charge for Variable Utility Expenses

The QS shall be billed monthly for the variable utility expenses associated with the operation and maintenance of the interconnection facilities. These include (a) the Company's inspections of the interconnection facilities and (b) maintenance of any equipment beyond that which would be required to provide normal electric service to the QS if no sales to the Company were involved.

In lieu of payment for actual charges, the QS may pay a monthly charge equal to a percentage of the installed cost of the interconnection facilities. The applicable percentages are as follows:

<u>Equipment Type</u>	<u>Charge</u>
Metering Equipment	0.218162%
Distribution Equipment	0.488202%
Transmission Equipment	0.403111%

D. Taxes and Assessments

In the event that FPL becomes liable for additional taxes, including interest and/or penalties arising from an Internal Revenue Service's determination, through audit, ruling or other authority, that FPL's payments to the QS for capacity under options B, C, D, E or for energy pursuant to the Fixed Firm Energy Payment Option D are not fully deductible when paid (additional tax liability), FPL may bill the QS monthly for the costs, including carrying charges, interest and/or penalties, associated with the fact that all or a portion of these capacity payments are not currently deductible for federal and/or state income tax purposes. FPL, at its option, may offset these costs against amounts due the QS hereunder. These costs would be calculated so as to place FPL in the same economic position in which it would have been if the entire early, levelized or early levelized capacity payments or the Fixed Firm Energy Payment had been deductible in the period in which the payments were made. If FPL decides to appeal the Internal Revenue Service's determination, the decision as to whether the appeal should be made through the administrative or judicial process or both, and all subsequent decisions pertaining to the appeal (both substantive and procedural), shall rest exclusively with FPL.

(Continued on Sheet No. 10.307)

Issued by: S. E. Romig, Director, Rates and Tariffs
Effective: October 4, 2011

FLORIDA POWER & LIGHT COMPANY

Fifth ~~Sixth~~ Revised Sheet No. 10.311
 Cancels Fourth ~~Fifth~~ Revised Sheet No. 10.311

APPENDIX II
 TO RATE SCHEDULE QS-2
 CAPACITY OPTION PARAMETERS

FIXED VALUE OF DEFERRAL PAYMENTS - NORMAL CAPACITY OPTION PARAMETERS

Where, for a one year deferral:		Value
VAC _m	= Company's value of avoided capacity and O&M, in dollars per kilowatt per month, during month m;	\$9,773.52
K	= present value of carrying charges for one dollar of investment over L years with carrying charges computed using average annual rate base and assumed to be paid at the middle of each year and present valued to the middle of the first year;	1.51360
I ₀	= total direct and indirect cost, in mid-year dollars per kilowatt including AFUDC but excluding CWIP, of the Company's Avoided Unit with an in-service date of year n;	\$4,108,3542.27
O ₀	= total fixed operation and maintenance expense, for the year n, in mid-year dollars per kilowatt per year, of the Company's Avoided Unit;	\$23,140.0
i _p	= annual escalation rate associated with the plant cost of the Company's Avoided Unit;	3.0%
i _o	= annual escalation rate associated with the operation and maintenance expense of the Company's Avoided Unit;	2.84%
r	= annual discount rate, defined as the Company's incremental after-tax cost of capital;	7.29%
L	= expected life of the Company's Avoided Unit;	301
n	= year for which the Company's Avoided Unit is deferred starting with its original anticipated in-service date and ending with the termination of the Standard Offer Contract.	2021

FIXED VALUE OF DEFERRAL PAYMENTS - EARLY CAPACITY OPTION PARAMETERS

A ₀	= monthly capacity payments to be made to the QS starting on the year the QS elects to start receiving early capacity payments, in dollars per kilowatt per month;	*
i _p	= annual escalation rate associated with the plant cost of the Company's Avoided Unit;	3.0%
i _o	= annual escalation rate associated with the operation and maintenance expense of the Company's Avoided Unit;	2.84%
n	= year for which early capacity payments to a QS are to begin; (at the election of the QS early capacity payments may commence anytime after the actual in-service date of the QS facility and before the anticipated in-service date of the Company's avoided unit)	*
F	= the cumulative present value of the avoided capital cost component of capacity payments which would have been made had capacity payments commenced with the anticipated in-service date of the Company's Avoided Unit and continued for a period of 10 years;	\$788,3942.27
r	= annual discount rate, defined as the Company's incremental after-tax cost of capital;	7.29%
t	= the term, in years, of the Standard Offer Contract for the purchase of firm capacity commencing in the year the QS elects to start receiving early capacity payments prior to the in-service date of the Company's Avoided Unit;	*
G	= the cumulative present value of the avoided fixed operation and maintenance expense component of capacity payments which would have been made had capacity payments commenced with the anticipated in-service date of the Company's Avoided Unit and continued for a period of 10 years.	\$192,580.0

*From Appendix E

Issued by: S. E. Romig, Director, Rates and Tariffs
 Effective: March 27, 2012